

What is Claimed is:

- [c1] 1. A system for reserving manufacturing capacity to satisfy a customer deliverable order for a product, said system comprising:
- a relational database tool adapted to receive said customer deliverable order; and
 - a product manager tool operatively connected to said relational database tool, said product manager tool being adapted to obtain a block of part numbers from unallocated part numbers and to supply said block of part number to said relation database,
- wherein said relational database tool is further adapted to automatically prepare a bill-of-materials to satisfy said customer deliverable order using part numbers from said block of part numbers.
- [c2] 2. The system in claim 1, wherein said product manager tool changes manufacturing capacity by obtaining of said block of part numbers.
- [c3] 3. The system in claim 2, further comprising a customer engagement tool operatively connected to said relational database tool, said customer engagement tool being adapted to forecast a cost of, and delivery date for said product based on said bill-of-materials and said manufacturing capacity.
- [c4] 4. The system in claim 1, further comprising a manufacturing planning engine operatively connected to said relational database, wherein said manufacturing planning engine is adapted to design said product based on said bill-of-materials, wherein said relational database is further adapted to revise said bill-of-materials as designing of said product progresses.
- [c5] 5. The system in claim 4, further comprising a manufacture driving tool operatively connected to said manufacturing planning engine, said manufacture driving tool being adapted to begin manufacturing of sub-components for said product before said design of said product is completed.
- [c6] 6. The system in claim 1, wherein said bill-of-materials includes at least one of: tools needed to manufacture said part; detailed measurements of said part; and structures needed in said part.

- [c7] 7. The system in claim 1, further comprising an add/obsolete tool operatively connected to said relational database tool, said add/obsolete tool being adapted to automatically delete unneeded part numbers from said relational database tool.
- [c8] 8. A method of reserving manufacturing capacity to satisfy a customer deliverable order for a product, said method comprising:
 - inputting said customer deliverable order to a relational database tool;
 - obtaining a block of part numbers from unallocated part numbers in a product manager tool to satisfy said customer deliverable order; and
 - automatically preparing a bill-of-materials in said relational database tool to satisfy said customer deliverable order using part numbers from said block of part numbers.
- [c9] 9. The method in claim 8, wherein said obtaining of said block of part numbers changes said manufacturing capacity.
- [c10] 10. The method in claim 9, further comprising forecasting a cost of, and delivery date for said product based on said bill-of-materials and said manufacturing capacity.
- [c11] 11. The method in claim 8, further comprising, after said producing of said bill-of-materials:
 - designing said product; and
 - revising said bill-of-materials as said designing of said product progresses.
- [c12] 12. The method in claim 10, further comprising beginning manufacturing of sub-components for said product using a manufacturing planning engine before said designing of said product is completed.
- [c13] 13. The method in claim 8, wherein said preparing of said bill-of-material includes identifying at least one of: tools needed to manufacture said part; detailed measurements of said part; and structures needed in said part, based on said information within said relational database tool.

- [c14] 14. The method in claim 8, further comprising automatically deleting unneeded part numbers from said relational database tool.
- [c15] 15. A program storage device readable by machine, tangibly embodying a program of instructions readable by said machine for performing a method of reserving manufacturing capacity to satisfy a customer deliverable order for a product, said method comprising:
- inputting said customer deliverable order to a relational database tool;
 - obtaining a block of part numbers from unallocated part numbers in a product manager tool to satisfy said customer deliverable order; and
 - automatically preparing a bill-of-materials in said relational database tool to satisfy said customer deliverable order using part numbers from said block of part numbers.
- [c16] 16. The program storage device in claim 15, wherein said obtaining of said block of part numbers changes said manufacturing capacity.
- [c17] 17. The program storage device in claim 16, wherein said method further comprises forecasting a cost of, and delivery date for said product based on said bill-of-materials and said manufacturing capacity.
- [c18] 18. The program storage device in claim 15, wherein said method further comprises, after said producing of said bill-of-materials:
- designing said product; and
 - revising said bill-of-materials as said designing of said product progresses.
- [c19] 19. The program storage device in claim 18, wherein said method further comprises beginning manufacturing of sub-components for said product using a manufacturing planning engine before said designing of said product is completed.
- [c20] 20. The program storage device in claim 15, wherein said method further comprises automatically deleting unneeded part numbers from said relational database tool.